(1) NF.4A

Elin saw this number sentence written on her mother's soup recipe.

$$\frac{3}{4} \times 2 = 1\frac{1}{2}$$

Which scenario best explains the equation on the soup recipe? Support your answer using numbers, drawings or words.

A The recipe uses $\frac{3}{4}$ cup of carrots and halving the recipe uses $1\frac{1}{2}$ cups of carrots.

B The recipe uses 4 cups of carrots and doubling the recipe uses $1\frac{1}{2}$ cups of carrots.

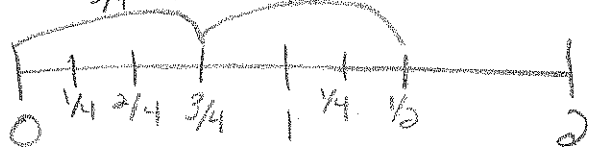
C The recipe uses 3 cups of carrots and halving the recipe uses $1\frac{1}{2}$ cups of carrots.

D The recipe uses $\frac{3}{4}$ cup of carrots and doubling the recipe uses $1\frac{1}{2}$ cups of carrots.

D.

1. example $\frac{3}{4} + \frac{3}{4} = \frac{6}{4} = 1\frac{2}{4} = 1\frac{1}{2}$

2. example



(2) NF.3

The cafeteria made 96 ounces of pudding. The cooks put the pudding into 7-ounce containers. How many of the containers can be filled completely with pudding? What fraction of a container (if any) will be leftover? Explain how you solve this problem using words, objects or numbers.

1. example

$7 \times 10 = 70$

$7 \times 3 = 21$

91

$3 \times 7 = 91$

$96 - 91 = 5$

5/7 leftover

2. example

Container	Oz per Container
1	7
2	14
3	21
4	28
5	35
6	42
7	49
8	56
9	63
10	70
11	77
12	84
13	91

96oz - 91oz = 5oz

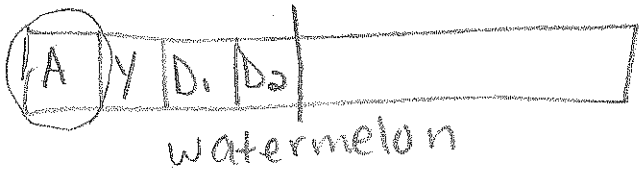
5/7 oz leftover

1

(3)

Andrea, Yolanda, and their two daughters shared half a watermelon. If they shared equally, how much of the watermelon did each receive? Show your work using pictures, numbers, or words.

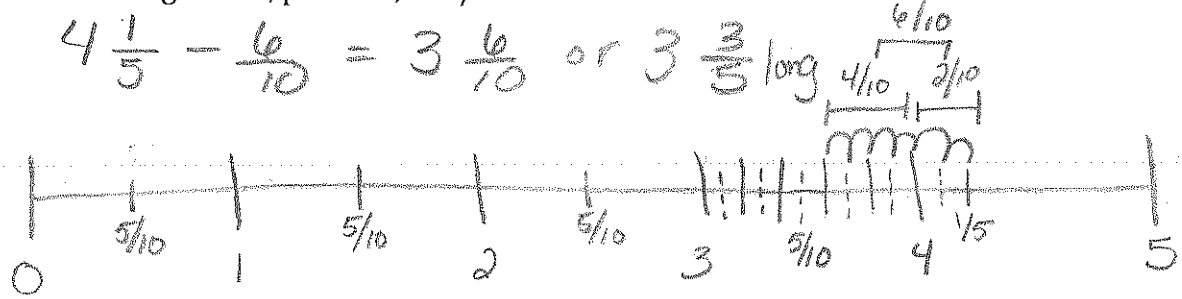
1/4 of a half or 1/8 of the watermelon



(4) NF.1

Mystique had a piece of string that was $4\frac{1}{5}$ inches long. She cut off $\frac{6}{10}$ of the string to use in her science fair project. How long is Mystique's string now? Show your work using words, pictures, and/or numbers.

$4\frac{1}{5} - \frac{6}{10} = 3\frac{6}{10}$ or $3\frac{3}{5}$ long



(5) NF.5a

Carla thinks that if she calculates $5\frac{1}{5}$ times $\frac{2}{5}$ that the product will be smaller than $5\frac{1}{5}$. Diego disagrees. What do you think? Explain your thinking.

Agree w/ Carla because 5 1/5 times a fraction is smaller. Therefore, 5 1/5 x 2/5 is 2/5 of 5 1/5. Which means you only have a portion of 5 1/5 which means it has to be smaller.

(6) NF.5b

Jorge has a recipe that calls for $2\frac{1}{3}$ cups of flour. He plans to make $1\frac{1}{2}$ times the recipe. Will the amount of flour Jorge needs be equal to, greater than, or less than the amount of flour his recipe calls for? Explain your reasoning.

Greater than one recipe because he is making it one time plus ½ more recipe.

(7) NF.2

Danielle wrote this equation in her notebook.

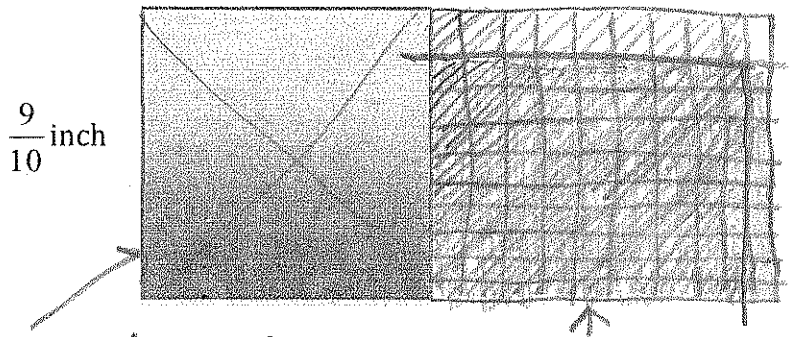
$$\frac{1}{9} + \frac{3}{5} = \frac{1}{2}$$

Without calculating the answer, how can you tell Danielle's sum is incorrect?

$\frac{3}{5}$ is more than ½. So, if one of the addends is more than ½, then the answer has to be more than ½.

(8) NF.4b

Carly made a mat for her drawing. The dimensions are shown below. What is the area of Carly's mat? Show your work on the diagram below using the area model.



The shading makes it hard to see.

After drawing in the dimensions they only overlapped in the middle.

$\frac{9}{10} \times \frac{9}{10} = \frac{81}{100}$ square inches

Extension (Distributive Property)

$\left(1 - \frac{1}{10}\right) + \left(1 - \frac{1}{10}\right) = \left(1 - \frac{1}{10} - \frac{1}{10}\right) + \frac{1}{100} =$

$\frac{10}{10} - \frac{2}{10} + \frac{1}{100} =$

$\frac{8}{10} + \frac{1}{100} = \frac{8 \times 10}{10 \times 10} + \frac{1}{100}$

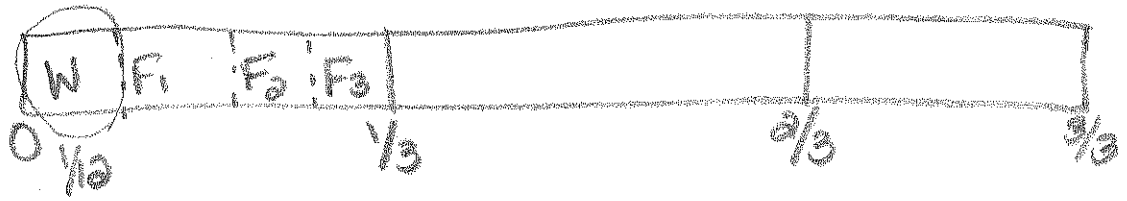
$= \frac{8}{100} + \frac{1}{100}$

$= \frac{81}{100}$

(9) NF.7

Create a story context for $\frac{1}{3} \div 4$. Use a visual fraction model to show the quotient. Use the relationship between multiplication and division in your explanation.

William and his 3 friends shared 1/3 of a sub. How much did each of them recieve



1/3 ÷ 4 = 1/12 or 1/12 x 4 = 1/3